---- Forwarded by Ruben Moya/R6/USEPA/US on 04/15/2013 02:53 PM -----

From: Kent D Becher <a href="mailto:kdbecher@usgs.gov">kdbecher@usgs.gov</a>>
To: Ruben Moya/R6/USEPA/US@EPA
Cc: Carlos Sanchez/R6/USEPA/US@EPA, Kent D Becher <a href="mailto:kdbecher@usgs.gov">kdbecher@usgs.gov</a>>
Date: 09/11/2012 04:58 PM
Subject: Fw: Arkwood Site - Status Report

### Hi Ruben,

Yes, the USGS collected a split sample from the site (above the weir only) this last February (please note that the both samples were collected the same day within minutes of each other, I made a mistake while using the new EPA sampling program, so our sample showed Feb 15th instead of Feb. 14th). I pretty much knew the results before of the samples before they were analyzed. At the time, they were pumping fresh water into the site, so I expected a non-detection or at least a low detection. My advice at the time was to collect a split sample when the injection of water wasn't being done to see if there were differences between lab samples. Both the PRP lab and EPA Houston lab detected low levels of PCP in the split sample collected. The relative percent difference was around 21, so slightly high, but the difference is most likely due to the low concentrations than any major lab analysis differences.

In regards to going back and determining if the data is valid or not is a loaded question. I can understand that the land owner may have questions in regards to the credentials of the laboratory that the PRP was using. I don't believe the PRP was working under a current QAPP at the time. They recently put together a new QAPP, but I will need to look at it to see if they state that the lab has to be NELAC or not. I am not sure if the State of Arkansas requires Arkansas State NELAC as you would have in Texas. I would have to assume that someone in the past has verified and validated the data, but I don't have that answer. I think at this point what has been done is done, so the best approach would be to try to appease the land owner by a few more QA-split samples. There appears to be some seasonality to the data, so collecting QA-splits over the next four quarters (assuming the injection stays off) would probably appease the land owner. I would recommend laying it on the line by stating that if EPA has this data collected and the lab results fall within acceptable ranges then the issue is dead. You have to put the nail in coffin eventually.

In addition, I believe the data needs to be normalized to natural flow and injected flow. This would give you a better picture of what is actually happening in the system. I believe they were injecting a set amount of water and I think we could weed out some stories from that data set if we know how much they injected and when. Tim Kresse (USGS Little Rock) and I had talked about trying to run some stats and trend analysis to come up with a better picture. This shouldn't take long to do something like this.

Here's what needs to be done if you want to go this route.

- 1. I need to close out the last WAF from the sampling of the site (been on my to do list for months). The funding has been expended, but I need to provide final status report to Stephen, yourself, and Kathy.
- 2. Will need to check with EPA Houston Lab to see if they will run 4 samples (plus QA, MS, and MSD) over the next year? If not, may need to go to CLP? Walt helped Shawn out with this in the past. If CLP doesn't work, we would then probably go to the next tier and I could use the USGS DODEC lab contract, but this is the third option.
- 3. This past year we used the Arkansas USGS to sample the site since they are within a few hours of the site. However, they only have one person in that office that is up to date on OSHA and I prefer not to use that person unless I have to do it (good worker, but hard to deal with that person). Tim Kresse would be the most knowledgeable person for the sampling since he reviewed the documents in the past and worked for ADEQ on Arkwood years ago. However, Tim has been hard to harness since he has been working on a very large

gas fracking study in Arkansas (also he isn't OSHA certified). Anyhow, I will probably do the sampling since I am up to date on training and I can run SCRIBE.

- 4. USGS just received a new award on the IAG, but most of it was for LHAAP, Delatte (pay for past work), Tar Creek (pay for past work), and basic salary. I would assume there is some pipeline funding in there for site specific projects. You will need to check with Kathy and ask her if she has funding and I know they want those funding requests in your system (CERCLIS) as part of project planning.
- 5. We can decide on a scope of work and then I can provide you with a cost estimate which can go into a one page work order to be signed by yourself, Carlos, and Kathy. The good news is that we already have a QAPP in place for split sampling, so I would just have to update the effective date for it.

Let me know on how you want to proceed.

## Thanks.

P.S. Also, if you didn't know already it is best to get a hold of me via my USGS e-mail address since I am always on my USGS computer. I have been reading EPA mail more lately since I just recently found away to get to it remotely (use to be able to do it a few years ago, but new firewalls were set up that wouldn't allow two Lotus users, long story, but not a problem now). Also, please check my calendar outside my office if you are looking to find me. I normally keep that up to date.

Kent D. Becher EPA Region 6 Superfund Technical Liaison U.S. Geological Survey Texas Water Science Center 2775 Alta Mesa Blvd Fort Worth, TX 76133 (817) 263-9545 ext 204 Cell 817-253-0356

---- Forwarded by Kent D Becher/WRD/USGS/DOI on 09/11/2012 03:44 PM -----

From: Kent Becher < Becher.Kent@epamail.epa.gov >

To: <u>kdbecher@usgs.gov</u>

Date: 09/11/2012 03:40 PM

Subject: Fw: Arkwood Site - Status Report

Kent Becher
USGS EPA Region 6 Liaison
Hydrologist
EPA Region 6 Superfund Division
Dallas, TX
cell (817-253-0356)
EPA (214-665-6484)

# USGS (817-263-9545 ext. 204) <u>kdbecher@usgs.gov</u> (preferred e-mail address) <u>Becher.Kent@epamail.epa.gov</u>

---- Forwarded by Kent Becher/R6/USEPA/US on 09/11/2012 03:39 PM -----

From: Ruben Moya/R6/USEPA/US
To: Kent Becher/R6/USEPA/US@EPA

Date: 09/11/2012 02:53 PM

Subject: Fw: Arkwood Site - Status Report

#### Kent

What are your thoughts on this? I spoke to Carlos yesterday. He indicated that at one point in the past, you went out there as well and did some split sampling...results were consistent with results returned by said lab below? Is that correct?

#### Ruben

---- Forwarded by Ruben Moya/R6/USEPA/US on 09/11/2012 02:51 PM -----

From: "grish.org" <<u>curt@grish.org</u>>
To: Ruben Moya/R6/USEPA/US@EPA
Cc: "grish.org" <<u>curt@grish.org</u>>

Date: 08/24/2012 11:49 AM

Subject: Re: Arkwood Site - Status Report

Hi Ruben, I know you're off; just wanted to write you while it was on my mind.

I have written before to Carlos and Don questioning the integrity of the water data used in McKesson's reports on Arkwood insofar as some of that data was created using a non-accredited lab in Missouri (MMET, Inc of Ozark Missouri, example attached).

I just spoke with Pat Shannon (>20 years at Missouri Department of Health and Senior Services, 573-751-3334) and Lori Dunmire (11 years at Missouri Department of Natural Resources' Environmental Services Program, 573-526-3326). Pat had heard of MMET, Inc (aka Middleton Microbiological & Environmental Testing) and said that lab never received microbiological laboratory certification by his agency during his time there. Lori had never heard of them and said they had not received chemical laboratory certification by her agency.

Would incorrect or unverified lab methodologies or sample handling (e.g. chain of custody) cause those data points to be thrown out and removed from any equation when determining averages, means, or trends in water quality related to Arkwood? Does anyone know what kind of facility MMET had for this work? Google shows the address of record (3889 N 20th St., Ozark, MO 65721 per Missouri Sec. of State) as rural residential (http://goo.gl/maps/R4YW9).

Has anyone ever put all the lab reports on water for Arkwood in a pile and checked them off against McKesson's data table, to verify the numbers got copied over correctly in the case of every data point in that table? I would do it myself, but the documents are difficult to dig out and assemble from my collection.

In the examples I have attached, two samples were taken and two different PCP numbers were derived by MMET for McKesson for that date (7/7/08); however, only the larger number was entered into McKesson's data table summarizing results. Is this evidence of a skew that pervaded the reporting?

I have never seen the evidence that the geology at Arkwood is simply "fractured karst," an underlying assumption upon which McKesson built part of its response. Is that geological assumption verified?

Thanks Ruben, Curt

On Aug 23, 2012, at 1:34 PM, Ruben Moya wrote:

Curt,

Hope this helps...

Ruben

From: grish < curt@grish.org >

To: Ruben Moya/R6/USEPA/US@EPA
Cc: Gloria-Small Moran/R6/USEPA/US@EPA

Date: 08/23/2012 10:33 AM

Subject: Re: Arkwood Site - Status Report

Ok, thanks Ruben!

On Aug 23, 2012, at 6:56 AM, Ruben Moya < Moya.Ruben@epamail.epa.gov > wrote:

Curt,

I am also going to send you some copies of what was sent yesterday to McKesson in terms of shutting down the system and monitoring for a certain period of time...

I will send out today...its a total of three pieces of correspondence.

r,

# Ruben

From: grish < curt@grish.org >

To: Gloria-Small Moran/R6/USEPA/US@EPA

Cc: Stephen Tzhone/R6/USEPA/US@EPA, Ruben Moya/R6/USEPA/US@EPA

Date: 08/21/2012 07:19 PM

Subject: Re: Arkwood Site - Status Report

That's great, Gloria; thank you! Curt

On Aug 21, 2012, at 4:31 PM, Gloria-Small Moran < Moran.Gloria-Small@epamail.epa.gov > wrote:

Mr. Grisham:

Please see my letter below addressed to your father and sent via first class mail providing a status report concerning the Arkwood Inc. site.

Thank you,

Gloria Moran
Assistant Regional Counsel
Superfund Branch (6RC-S)
U.S.EPA, Region 6
1445 Ross Avenue
Dallas TX 75202-2733
214-665-3193
214-665-6460 (fax)
moran.gloria-small@epamail.epa.gov

<Letter to Bud Grisham Aug.21.12.pdf>

<GroundwaterRemediationDocument8222012.pdf><2012\_08\_15\_Dye TracerTest\_Critical
Review\_2012.pdf><Arkwood - 8-9-2012 - Responses to comments.pdf>
(See attached file: Excerpt - Arkwood - 8-9-2012 - Responses to comments.pdf)(See attached file: M12511\_7-7-08 copy.pdf)